



# Diabetes in the Child Care Setting

## What is it?

Diabetes is a serious illness in which the body is unable to properly change sugar from food into energy. A simple sugar called glucose is the main source of energy for our body. Insulin, a hormone produced by the pancreas—a large gland behind the stomach—helps the body to use the glucose for energy.

Diabetes happens when the body does not produce enough insulin (Type 1 or insulin-dependent), or use it properly (Type 2 or non-insulin-dependent). As a result glucose begins to build up in the blood, creating high sugar levels in the body.

Very young children with diabetes usually have Type 1 diabetes, in which the body does not make insulin. They therefore need daily injections of insulin.

## Who gets it and how?

As obesity rates in children have increased, type 2 diabetes has become more common in children. Child care providers are now much more likely to have a child with diabetes in their care.

Diabetes is not contagious. People cannot catch it from each other. At present, scientists do not know exactly what causes diabetes, but they believe that both genetic factors and viruses are involved. Diabetes can run in families.

## What are the symptoms?

Two kinds of problems occur when the body does not make insulin:

1. **Hyperglycemia, or high blood sugar**, occurs with both types of diabetes. It occurs when the body gets too little insulin, too much food, too little exercise or with illness. Stress from a cold, sore throat, or other illness may increase the level of blood glucose. Symptoms include frequent urination, excessive thirst, extreme hunger, unusual weight loss, irritability and poor sleep, nausea and vomiting, and weakness and blurred vision.
2. **Hypoglycemia, or low blood sugar**, is more common in people with Type 1 diabetes. It is the most common immediate health problem and is also called “insulin

reaction” or “insulin shock.” It occurs when the body gets too much insulin, too little food, a delayed meal or more than the usual amount of exercise. Symptoms may include hunger, pale skin, weakness, dizziness, headache, shakiness, changes in mood or behavior (irritability, crying, poor coordination), sweating, and rapid pulse. Treatment commonly involves quickly restoring glucose levels to normal with a sugary food or drink such as cola, orange juice, candy, or glucose tablets. If not treated properly, hypoglycemia can result in loss of consciousness and life-threatening coma. Glucagon injections are used in these life-threatening situations to increase blood glucose.

## What factors affect blood glucose level?

Exercise helps to lower blood sugar. Regular exercise is important because of the need to balance the effect of exercise with food and insulin. A caregiver or teacher may be asked to test blood sugars during the day to see if the child needs more insulin or a snack. Types, amount, and frequency of meals and snacks have different effects on blood sugar. Children with diabetes need special diets in reasonable amounts, and on regular schedules. Working with the family to develop a special care plan will help caregivers plan for meals and snacks. A child with diabetes may need to eat a snack before, during, or after energetic exercise.

## The law, licensing and diabetes

The Americans with Disabilities Act, a federal law, considers diabetes a disability, forbids discrimination against the disabled, and puts legal responsibility on child care providers to care for the special needs of children with diabetes.

Effective January 1, 1998, child care providers in California are allowed to perform a blood-glucose test (using a finger-stick test) on a child in their care. However, they may not give an insulin injection to any child in a child care facility. California Community Care Licensing (CCL) requires certain conditions be met to care for a child with diabetes. To include a child with

diabetes the local licensing evaluator must be notified to determine what legally needs to be in place before a child enters care. Licensing form 92222 Blood Testing Consent/Verification is used to show compliance and is completed by the parents.

In 2005 Community Care Licensing allowed the administration of glucagon as a life-saving measure for children with diabetes. A child care program must request and receive an exception from licensing and follow the department conditions for the administration of glucagons which includes but is not limited to parental consent, staff training and responsibility, written instruction from the health care provider, etc

## Blood glucose testing

Regular testing of blood glucose levels is a very important part of diabetes care. Testing is done by taking a drop of blood, usually from a finger, and placing it on a special test strip in a glucose meter. Caregivers must practice universal precautions when handling and disposing of testing equipment. Glucose meters are easy to use, and most children over 4 years old quickly learn how to do their own blood glucose tests. Keeping blood glucose levels within a normal range is rarely possible in children with diabetes. A health care provider will often identify a target range for blood glucose levels for each young child — for example, 80 to 180 mg/dl.

### Summary of key points

#### Good diabetes care practices include

- eating reasonably, consistently, and on schedule
- testing blood glucose levels regularly
- adjusting insulin as glucose levels and activities warrant
- recognizing and responding to signs of hypoglycemia
- following an up-to-date diabetes health care plan for child care

meet the special needs of children with diabetes, and help them lead healthy, active, and fulfilled lives without having to change their regular program. A written, special care plan should include:

- When to test blood glucose and take insulin
- Regular meal and snack times
- Preferred snacks and party foods
- Usual symptoms of hypoglycemia and preferred treatments
- When and how to notify the child's parents of problems
- When and how to contact the child's health care provider
- Who will give insulin injections when needed

Infant, toddlers and pre-school-age children with diabetes often need frequent blood glucose tests because they have not yet learned to recognize the symptoms of low blood sugar, can't tell what they feel, or may try to avoid or delay finger-prick and insulin injections. They may also drink and urinate a lot, so make sure they can go to the bathroom as often as they need. For more information on diabetes, please call our toll-free Healthline at 1-800-333-3212 or American Diabetes Association 1-800-DIABETES.

## How is it managed?

Care for diabetes is more flexible than it used to be. It requires self care or assistance with care if the child is very young. Children with diabetes can participate in all child care activities. Except for paying attention to their special care plan, you do not need to treat them differently just because they have diabetes.

The goals for treatment of diabetes in children are to:

- (a) Maintain normal growth and development
- (b) Keep blood glucose levels within a target range (not too high, not too low)
- (c) Promote healthy emotional well being.

Child care providers in coordination with parents and health care providers can prepare a special care plan to

## References

American Diabetes Association, [www.diabetes.org](http://www.diabetes.org) (check out Wisdom Pod for ideas on working with infants and toddlers who have diabetes)

*Assembly Bill (AB) 221 Chapter 550, Statutes of 1997, Section 1596.797 of the Health and Safety Code.*

*Care of Children With Diabetes In the School and Day Care Setting, by the American Diabetes Association. 2003 Diabetes Cares 26: S131-S135 accessed June 11, 2008, [http://care.diabetesjournals.org/cgi/content/full/26/suppl\\_1/s131](http://care.diabetesjournals.org/cgi/content/full/26/suppl_1/s131). (This very good article includes links to a "Diabetes Health Care Plan for School and Day Care," training resources for school and day care, and outlines responsibilities for parents and schools or child care personnel).*

National Institutes of Health (NIH) <http://www.ndep.nih.gov/diabetes/youth/youth.htm>

Community Care Licensing regulations, [www.cclcd.ca.gov](http://www.cclcd.ca.gov)

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